	1	CLAIMS
J	2	What is claimed is:
	3	,
	W. >	Claim 1. A biopolymer marker selected from the group
	(5)	consisting of sequence ID (R) SPNHIVVLCR(G),
	651	(K)QHPCLDGSAGR(N), (R)TAAHPAQRRPWR(A) or at least one
	7	analyte thereof useful in indicating at least one
	8	particular disease state.
	9	
U Q	10	Claim 2. The biopolymer marker of claim 1 wherein
40	10 11 12 13	said disease state is predictive of Alzheimers disease.
# # #	12	
ij	13	Claim 3. A method for evidencing and categorizing at
ii.	14	least one disease state comprising:
	15	obtaining a sample from a patient;
1 1 1	16	conducting mass spectrometric analysis on said
	17	sample;
	18	evidencing and categorizing at least one biopolymer
	19	marker sequence or analyte thereof isolated from said
	20	sample; and,
	21	comparing said at least one isolated biopolymer
	22	marker sequence or analyte thereof to the biopolymer
	23	marker sequence as set forth in claim 1;
	24	wherein correlation of said isolated biopolymer

1	marker and said proporymer marker sequence as set forth in
2	claim 1 evidences and categorizes said at least one
3	disease state.
4	
5	Claim 4. The method of claim 3, wherein said step
6	of evidencing and categorizing is particularly directed to
7	biopolymer markers or analytes thereof linked to at least
8	one risk of disease development of said patient.
10	Claim 5. The method of claim 3, wherein said step
11	of evidencing and categorizing is particularly directed to
12	biopolymer markers or analytes thereof related to the
13 14	existence of a particular disease state.
15	Claim 6. The method of claim 3, wherein the sample
16 17	is an unfractionated body fluid or a tissue sample.
18	
19	Claim 7. The method of claim 3, wherein said sample
20	is at least one of the group consisting of blood, blood
21	products, urine, saliva, cerebrospinal fluid, and lymph.
22	
23	Claim 8. The method of claim 3, wherein said mass
24	spectrometric analysis is selected from the group
	<b>\</b>

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consisting of Surface Enhanced Laser Desorption Ionization
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   2
        (SELDI) mass spectrometry (MS), Maldi Qq TOF, MS/MS,
        TOF-TOF, and ESI-Q-TOF or an ION-TRAP.
   3
   4
             Claim 9.
                        The method of claim 3, wherein said
   5
        patient is a human.
   6
   7
             Claim 10. \ A diagnostic assay kit for determining
   8
   9
        the presence of the biopolymer marker or analyte thereof
10
        of claim 1 comprising:
  11
             at least one biochemical material which is capable of
Ū
        specifically binding with a biomolecule which includes at
  12
O
        least said biopolymer marker or analyte thereof, and
  13
             means for determining binding between said
biochemical material and said biomolecule;
  15
             whereby at least one analysis to determine a presence
        of a marker, analyte thereof, or a biochemical material
  17
        specific thereto, is carried out on a sample.
  18
  19
                        The diagnostic assay kit of claim 10,
  20
             Claim 11.
        wherein said biochemical material or\biomolecule is
  21
  22
        immobilized on a solid support.
  23
             Claim 12. The diagnostic assay kit \delta_{\rm f} claim 10
  24
```

	1	including:
	2	at least one labeled biochemical material.
	3	
	4	Claim 13. The diagnostic assay kit of claim 10,
	5	wherein said biochemical material is an antibody.
	6	
	7	Claim 14\ The diagnostic assay kit of claim 12,
	8	wherein said labeled biochemical material is an antibody.
	9	`
	10	Claim 15. The diagnostic assay kit of claim 10,
Ž U	11	wherein the sample is an unfractionated body fluid or a
W O	12	tissue sample.
Ū	13	
-d-	14	Claim 16. The diagnostic assay kit of claim 10;
U U J	15	wherein said sample is at least one of the group
	16	consisting of blood, blood products, urine, saliva,
	17	cerebrospinal fluid, and lymph.
	18	
	19	Claim 17. The diagnostic assay kit of claim 10,
	20	wherein said biochemical material is at least one
	21	monoclonal antibody specific therefore.
N	22	
P	20	Claim 18. A kit for diagnosing, determining risk-
	24/6	assessment, and identifying therapeutic avenues related to

1	à disease state comprising:
2	igg angle at least one biochemical material which is capable of
3	specifically binding with a biomolecule which includes at
4	least one biopolymer marker selected from the group
5	consisting of sequence ID (R)SPNHIVVLCR(G),
6	(K)QHPCLDGSAGR(N), (R)TAAHPAQRRPWR(A) or analyte thereof
7	related to said disease state; and
8	means for determining binding between said
9 □	biochemical material and said biomolecule;
10 ©	whereby at least one analysis to determine a presence
10 10 11 11 12 11 13	of a marker, analyte thereof, or a biochemical material
₩ 12 Ф	specific thereto, is carried out on a sample.
■ 15	
<u>⊨</u> 14	Claim 19. The kit of claim 18, wherein said
15 U 16	biochemical material or biomolecule is immobilized on a
<u> </u>	solid support.
17	
18	Claim 20. The kit of claim 18 including:
19	at least one labeled biochemical material.
20	
21	Claim 21. The kit of claim 18, wherein said
22	biochemical material is an antibody.
23	
24	Claim 22. The kit of claim 20, wherein said labeled
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1		biochemical material is an antibody.
2	2	
3	3	Claim 23. The kit of claim 18, wherein the sample is
4	١.	an unfractionated body fluid or a tissue sample.
5	5	
6	5	Claim 24. The kit of claim 18, wherein said sample
7	7	is at least one of the group consisting of blood, blood
8	3	products, urine, saliva, cerebrospinal fluid, and lymph.
9	)	
다 한 10	)	Claim 25. The kit of claim 18, wherein said
다 10 주 11 보 12 1 13	·	biochemical material is at least one monoclonal antibody
₩ ₩ 12	2	specific therefore.
¥ Ų 13	3	
: ≠ 14	1	Claim 26. The kit of claim 18, wherein said
≠ U 15	5	diagnosing, determining risk assessment, and identifying
վ ⊒ 16 ≟	ó	therapeutic avenues is carried out on a single sample.
17	7	
18	3	Claim 27. The kit of slaim 18. wherein said
19	)	diagnosing, determining risk assessment, and identifying
20	)	therapeutic avenues is carried out on multiple samples
21	<u> </u>	such that at least one analysis is carried out on a first
22	2	sample and at least another analysis is carried out on a
23	2	second sample

24

	1	Claim 28. The kit of claim 27, wherein said first
	2	and second samples are obtained at different time periods.
	3.	
٨	140	Claim 29. Polyclonal antibodies produced against a
		marker sequence ID selected from the group consisting of
	6	sequence (R) SENHIVVLCR(G), (K) QHPCLDGSAGR(N),
	7	(R) TAAHPAQRRPWR(A) or at least one analyte thereof in at
	8	least one animal host.
	9	
	10	Claim 30. An antibody that specifically binds a
	11	biopolymer including a marker selected from the group
W	12	consisting of sequence ID (R)SPNHIVVLCR(G),
Ū	13	(K)QHPCLDGSAGR(N), (R)TAAHPAQRRPWR(A) or at least one
# #	14	analyte thereof.
	15	
	16	Claim 31. The antibody of claim 30 that is a
H	17	monoclonal antibody.
	18	
	19	Claim 32. The antibody of claim 30 that is a
	20	polyclonal antibody.
	21	
	R2 1	Claim 33. A process for identifying therapeutic
L	州	avenues related to a disease state comprising:
N.	24 X	conducting an analysis as provided by the kit of

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1 claim 18; and 2 interacting with a biopolymer selected from the group consisting of sequence ID (R)SPNHIVVLCP(G), 3 (K)QHPCLDGSAGR(N), (R)TAAHPAQRRPWR(A) or at least one 4 analyte thereof; 5 whereby therapeutic avenues are developed. 6 7 The process for identifying therapeutic 8 Claim 34. avenues related to a disease state in accordance with 9 claim 33, wherein said therapeutic avenues regulate the 10 presence or abserce of the biopolymer selected from the 11 group consisting of sequence ID (R)SPNHIVVLCR(G), 12 13 (K)QHPCLDGSAGR(N), (R)TAAHPAQRRPWR(A) or at least one analyte thereof. 14 15 The process for identifying therapeutic 16 Claim 35. avenues related to a disease state in accordance with 17 claim 33, wherein said therapeutic avenues developed 18 include at least one avenue selected from a group 19 20 consisting of 1)utilization and recognition of said 21 biopolymer markers, variants or moieties thereof as direct therapeutic modalities, either alone or in conjunction 22 23 with an effective amount of a pharmaceutically effective 24 carrier; 2) validation of therapeutic modalities or disease

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1	preventative agents as a function of biopolymer marker
2	presence or concentration; 3) treatment or prevention of a
3	disease state by formation of disease intervention
4	modalities; 4) use of biopolymer markers or moieties
5	thereof as a means of elucidating therapeutically viable
6	agents, 5)instigation of a therapeutic immunological
7	response; and 6) synthesis of molecular structures related
8	to said biopolymer markers, moieties or variants thereof
9	which are constructed and arranged to therapeutically
10	intervene in said disease state.
11	
12	Claim 36. The process for identifying therapeutic
13	avenues related to a disease state in accordance with
14	claim 35, wherein said treatment or prevention of a
15	disease state by formation of disease intervention
16	modalities is the formation of biopolymer/ligand
17	conjugates which intervene at receptor sites to prevent,
18	delay or reverse a disease process
19	
20	Claim 37. The process for identifying therapeutic
21	avenues related to a disease state in accordance with
22	claim 35, wherein said means of elucidating
23	therapeutically viable agents includes use of a
24	bacteriophage peptide display library or a bacteriophage

1 antibody library.

2

Claim 38. A process for regulating a disease state by controlling the presence or absence of a biopolymer selected from the group consisting of sequence ID

(R)SPNHIVVLCR(G), K) HPCLDGSAGR(N), (R)TAAHPAQRRPWR(A) or

7 at least one analyte thereof.

8

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